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Anmelder/Applicant/Demandeur/Patentinhaber/Proprietor/Titulaire Yazaki Corporation	

COMMUNICATION

The European Patent Office herewith transmits as an enclosure the European search report for the above-mentioned European patent application.

If applicable, copies of the documents cited in the European search report are attached.

☒ Additional set(s) of copies of the documents cited in the European search report is (are) enclosed as well.

The following specifications given by the applicant have been approved by the Search Division:

☐ abstract

☒ title.

☒ The abstract was modified by the Search Division and the definitive text is attached to this communication.

The following figure will be published together with the abstract:

1

REFUND OF THE SEARCH FEE

If applicable under Article 10 Rules relating to fees, a separate communication from the Receiving Section on the refund of the search fee will be sent later.





DOCUMENTS CONSIDERED TO BE RELEVANT			
Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim	CLASSIFICATION OF THE APPLICATION (Int.Cl.7)
✓ X	PATENT ABSTRACTS OF JAPAN vol. 010, no. 236 (E-428), 15 August 1986 (1986-08-15) & JP 61 069364 A (TOSHIBA CORP), 9 April 1986 (1986-04-09) * abstract *	1	H02K11/00 H02K37/14
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4 Y	US 5 070 264 A (CONRAD ARMIN) 3 December 1991 (1991-12-03) * abstract; figures 1-3 *	1	
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7 A	GB 1 354 624 A (ULTRA ELECTRONICS LTD) 5 June 1974 (1974-06-05) * page 1, right-hand column, line 56 - page 2, left-hand column, line 34; figures 1-3 *	1-3	
The present search report has been drawn up for all claims			
Place of search MUNICH		Date of completion of the search 10 July 2001	Examiner Tangocci, A
CATEGORY OF CITED DOCUMENTS			
X : particularly relevant if taken alone Y : particularly relevant if combined with another document of the same category A : technological background O : non-written disclosure P : intermediate document		T : theory or principle underlying the invention E : earlier patent document, but published on, or after the filing date D : document cited in the application L : document cited for other reasons & : member of the same patent family, corresponding document	



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EUROPEAN SEARCH REPORT

Application Number
EP 01 10 8632

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ANNEX TO THE EUROPEAN SEARCH REPORT ON EUROPEAN PATENT APPLICATION NO.

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This annex lists the patent family members relating to the patent documents cited in the above-mentioned European search report. The members are as contained in the European Patent Office EDP file on The European Patent Office is in no way liable for these particulars which are merely given for the purpose of information.

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ABSTRACT / ZUSAMMENFASSUNG / ABREGE

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A stepping motor is provided, which includes: exciting coils (1a1,1a2); a rotor provided with a plurality of N/S poles so as to rotate following a change of an excitation state of the exciting coils; and a detecting coil (1c) provided separately from the exciting coils so as to generate induction voltage according to rotation of the rotor (1b). And, a driving apparatus including the stepping motor is provided, which further includes: a driven member linked with the rotor; a stopper (5) to mechanically stop the driven member at a predetermined position; a first exciting means (4a) to normally or reversely rotate the rotor by controlling the excitation state of the exciting coils (1a1,1a2); a second exciting means (4b) to reverse the rotor (1b) in a direction of making the driven member move toward the predetermined position by controlling the excitation state of the exciting coils; a position detecting means (4d) to detect the driven member having abutted the stopper (5) and stopped at the predetermined position on a basis of induction voltage generated in the detecting coil (1c) during control by the second exciting means (4b); and a controlling means (4e) which stops the first exciting means (4a) controlling and starts the second exciting means (4b) controlling when an instruction signal is inputted, and which starts the first exciting means (4a) controlling and stops the second exciting means (4b) controlling when the position detecting means (4d) detects the driven member having stopped at the predetermined position.